

We claim:

1. An apparatus for use in detecting tampering with a container sealed with a cap, comprising:
 - a radio frequency transceiver circuit adapted to transmit a signal upon receipt of a transmit command;
 - an antenna having a fixed length connected to said radio frequency transceiver circuit; and
 - means for preventing said radio frequency transceiver circuit from transmitting a signal when the container has been tampered with.
2. An apparatus for use in detecting tampering with a container sealed with a cap, comprising:
 - a substrate having a first portion thereof adapted to be affixed to a portion of the container, and a second portion thereof adapted to be affixed to the cap;
 - a radio frequency transceiver circuit mounted on said substrate adapted to transmit a signal upon receipt of a transmit command;
 - an antenna having a fixed length connected to said radio frequency transceiver circuit and mounted on said substrate, adapted to be arranged so that a portion of said antenna is mounted over the container and a portion of said antenna is mounted over the cap such that removal of the cap from the container will cause said antenna to separate thereby preventing said radio frequency transceiver from receiving any commands.
3. The apparatus of Claim 2, further comprising a security seal mounted over said substrate, said radio frequency transceiver circuit and said antenna.

4. The apparatus of Claim 2, wherein said substrate is positioned such that said antenna forms a magnetic configuration.

5. An apparatus for detecting tampering with a container filled with a substance, comprising:

- 5 a cap adapted to seal said container when connected thereto;
- a radio frequency transceiver circuit adapted to transmit an identification code upon receipt of a command to transmit and mounted within said cap;
- an antenna having a fixed length connected to said radio frequency transceiver circuit and mounted to said cap;
- 10 a sensor that produces an output indicative of an amount of said substance within said container and mounted within said cap; and
- means for disabling said radio frequency transceiver when said sensor indicates a change in said amount of said substance within said container mounted within said cap.

15

- 6. The apparatus of Claim 5 wherein said sensor comprises a resistor having a predetermined resistance and a probe connected as a voltage divider and excited by a battery having a fixed voltage, said probe comprising a first conductive rod and a second conductive second rod mounted substantially
- 20 parallel to each other and perpendicular to a horizontal axis of said cap such that said probe has a low resistance when said first and second rods are in said substance of said container and a high resistance when said probe is not immersed in said substance of said container.

- 7. An apparatus for detecting tampering with a container filled with
- 25 a substance, comprising:
- a cap adapted to seal said container when connected thereto;

a radio frequency transceiver circuit adapted to transmit one of a plurality of identification codes upon receipt of a command to transmit and mounted within said cap;

an antenna having a fixed length connected to said radio frequency
5 transceiver circuit and mounted to said cap;

a sensor that produces an output indicative of an amount of said substance within said container and mounted within said cap; and

means for instructing said radio frequency transceiver to transmit a particular one of said plurality of identification codes based upon said output of
10 said sensor.

8. The apparatus of Claim 7 wherein said sensor comprises a resistor having a predetermined resistance and a probe connected as a voltage divider and excited by a battery having a fixed voltage, said probe comprising a first
15 conductive rod and a second conductive second rod mounted substantially parallel to each other and perpendicular to a horizontal axis of said cap such that said probe has a low resistance when said first and second rods are in said substance of said container and a high resistance when said probe is not immersed in said substance of said container.

20 9. A method for use in identifying tampering with a container sealed with a cap, comprising the steps of:

attaching a radio frequency transceiver circuit and an antenna connected thereto to the container, said radio frequency circuit adapted to respond to receipt of a transmit command by transmitting a signal;

25 disabling said radio frequency circuit when tampering with the container has been detected;

transmitting a transmit command to said radio frequency transceiver circuit; and

identifying tampering with a container by the failure of the container to respond to said transmit command.

10. The method of Claim 9, wherein said antenna has a first end connected to the container and a second end connected to the cap, and said step of
5 disabling is accomplished by separating portions of said antenna thereby preventing said radio frequency transceiver circuit from receiving any commands.